

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph no. [0014] with the following amended paragraph:

[0014] The above mentioned and other aspects and features of the invention will become more apparent and the invention itself will be best understood by referring to the following description of an embodiment taken in conjunction with the accompanying drawings, in which:~~drawing~~

[0014A] Fig. 1 ~~which~~ is a scheme of an Internet INTERNET wherein the method for compressing a list of destination addresses of a multicast message according to the present invention is implemented;

[0014B] Fig. 2 is an exemplary embodiment of the destination list compression device according to the present invention.

Please replace the paragraph no. [0016] with the following amended paragraph:

[0016] To explain the invented compression technique it is supposed that host H1 has to multicast an IP (Internet Protocol) datagram to the destination hosts D1, D2 and D3 and thereto applies connectionless multicasting. In the overhead section of this IP datagram, host H1 thus has to identify the destination hosts D1, D2 and D3 by their respective IP addresses A.B.C.D, A.B.C.E and A.F.G.H. The destination list compression device in host H1 will aid to realize this with low overhead consumption. The destination list compression device comprises a common prefix detector 20, a suffix list generator 21 and an adder 22 that adds common prefix and suffix list into a compound address. The common prefix detector 20 of the destination list compression

device in host H1 detects that the addresses A.B.C.D and A.B.C.E of respectively host D1 and host D2 have a common prefix A.B.C. By subtracting this common prefix A.B.C from the addresses A.B.C.D and A.B.C.E, the suffix list generator 21 of the compression device obtains the suffixes D and E which it uses to generate a suffix list {D,E}. The adder 22 adds this This suffix list {D,E} is added to the common prefix A.B.C to constitute a compound address A.B.C{D,E} that still indicates that the two hosts D1 and D2 belong to the destinations of the IP datagram but which contains only 5 octets, i.e., A, B, C, D and E, instead of the 8 octets, A, B, C, D, A, B, C and E, that have to be embedded in the IP datagram overhead if no compression is applied. As a result of the first iteration step in the compression method, host H1 obtains a list of destination addresses for the IP datagram to be multicasted that consists of the IP address A.F.G.H and the compound destination address A.B.C{D,E}. In a second iteration step, the common prefix detector 20 of the compression device in host H1 detects that the IP address A.F.G.H and the compound address A.B.C{D,E} still have a common prefix A. The suffix list generator 21 subtracts ~~By subtracting~~ this common prefix A from the IP address A.F.G.H and the compound address A.B.C{D,E}, the compression device of host H1 generates the suffixes F.G.H and B.C{D,E} from which the list of suffixes {B.C{D,E},F.G.H} is constituted. The adder 22 adds this ~~This~~ list of suffixes {B.C{D,E},F.G.H} is added to the common prefix A to generate a new compound address A{B.C{D,E},F.G.H} that indicates that the IP datagram has to be multicasted to the destination hosts D1, D2 and D3, but which thereto occupies only 8 octets, i.e., A, B, C, D, E, F, G, H, instead of the 12 octets, A, B, C, D, A, B, C, E, A, F, G and H, that would have been embedded in the overhead section of the IP datagram if no compression was applied.

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In this way, the overhead for transferring the IP datagram over link L11 has been reduced significantly.